Remarks

Claim Status

Claims 14-16 and 44-55 and 57-67 are pending. Claims 14-16 and 44-47 are withdrawn from consideration. Claims 48-55 and 57-67 are presently under consideration. (New independent claim 66 is loosely modeled after claim 63 and is believed properly grouped with the presently elected claims.)

Claims 41-43 and 56 have been canceled without prejudice. We reserve the right to present the canceled subject matter in one or more continuing applications. (Claim 54 has been amended to include features that are believed to be broader in scope than those previously recited in now-canceled claim 56.)

Restriction

Applicants again ask for reconsideration of the decision not to group claims 14-16 and 44-47 with the presently elected claims. Applicants reserve their rights to petition for review of the Examiner's restriction decision.

Drawings

New drawings are provided per the Examiner's request. These drawings are not necessary for the understanding of the invention; rather, they are merely provided in response to an informality request.

Applicants submit that no new matter has been added.

Formal Rejections

Claims 48-53 and 59-65 stand rejected under 35 U.S.C. 112 as being indefinite. We respectfully traverse this rejection.

The Examiner requests clarification regarding the role of changing a geometric orientation of an image and determining attributes of an image in the context of linking to metadata.

One example of "determining attributes" of an image includes deriving a content signature or fingerprint from the image. A signature or fingerprint is a reduced-bit representation of content that can uniquely identify the content. *Please see, e.g.*, the

specification at page 1, paragraph 5, page 2, paragraph 6[1] and page 5, paragraphs 20 and 21.

The applicants' application describes using a content signature or fingerprint as an index or key to a database. *Please see, e.g.,* page 2, paragraph 6. A signature can also be used in a process to "link" or other access metadata associated with content. Fingerprint or signature-based linking is even further described in U.S. Patent Application No. 09/563,664 (now U.S. Patent No. 6,505,160) which is incorporated by reference into the subject specification on page 1, paragraph 2 and page 27, paragraph 92. The term "connected content" is sometimes used to describe such linking.

Content signatures are often sensitive to distortion such as scaling, noise and rotation. *Please see, e.g.,* the specification at page 4, paragraph 12 and page 11, paragraph 36. Calculating a signature or fingerprint from distorted content can yield imprecise results.

An imprecise fingerprint or signature that is used to link to or other access metadata would yield a poor result, analogous to accessing a database with a wrong index or search term.

Applicants realized a need to have an accurate signature for use when linking and suggested realigning or reorienting content before a signature calculation. Please see, e.g., the paragraphs mentioned above.

We respectfully request withdrawal of the outstanding formal rejections.

Art-based Rejections:

Claims 48-53 and 58-65 stand rejected over Crosby (U.S. Patent No. 6,870,547) in view of Cox (U.S. Patent No. 5,930,369).

Claims 54, 55 and 57 stand rejected over Gindele (U.S. Patent No. 6,785,421).

Claim 56 stands rejected over Gindele in view of Cox.

We respectfully traverse these rejections.

[1] "Other advantages of a content signature may include identifying attributes associated with the content item, linking to other data, enabling action s or specifying behavior (copy, transfer, share, view, etc.), protecting the data, etc." See the specification at page 2, paragraph 6, last sentence.

Claim 48

Crosby is not understood to calculate a plural-bit identifier from an image and use at least some of the plural-bit identifier to interrogate a network resource to obtain metadata, in combination with other features of claim 48. The specification provides many examples of calculating or deriving a plural-bit identifier, e.g., a hash, signature and fingerprint.

Instead of calculating, e.g., a fingerprint or hash, Crosby suggests storing an image reference as metadata associated with a JPEG file. *Please see* Crosby at Col. 16, lines 53-58.

We respectfully disagree with the suggestion of combining Crosby with Cox.

Crosby is not understood to teach or suggest changing a geometric orientation of content prior to calculating a plural-bit identifier. The Examiner seems to agree. *Please see* the Office Action on page 6, lines 4-5. And the cited passages of Cox do not seem concerned with linking an image to metadata or fingerprinting.

The motivation[2] used by the examiner to combine Crosby and Cox does not even address linking an image to metadata or fingerprint calculation, e.g., a plural-bit identifier derived from the image itself as compared to extracting information embedded within an image like Cox's watermark.

For sake of brevity, we will not repeat this argument for each of the following claims.

Favorable reconsideration is requested.

Claim 60

Claim 60 specifically recites deriving a fingerprint or signature from a changed media signal, in combination with other features of the claim. The fingerprint or signature is used to interrogate a network resource.

The fingerprint or signature is derived from a "changed" media signal.

---

[2] "The motivation for doing so is to have a watermarking method be resilient to any distortions introduced by transmission or compression algorithms...." *Please see* the Office Action on page 6, lines 7-9.

(We also disagree that claim 60 includes "identical features" as claim 48 as suggested by the Examiner. Each of the independent claims recites distinct combinations.)

Favorable reconsideration is requested.

Claims 51, 63 and 66

These claims recite, e.g., interrogating a network resource through use of inherent attributes of the changed image data (claims 51 and 63) and interrogating a network resource through use of attributes calculated or derived from the corrected media (new claim 66). Unlike Crosby, which suggests using metadata associated with an image file as a reference (*please see* Crosby at Col. 16, lines 53-58), these claims envision a reference or identifier (e.g., attributes) that is based on the image itself, e.g., a hash, fingerprint or content signature.

Again the attributes are only determined after the image data is changed or corrected.

Favorable reconsideration is requested.

Claim 54

Amended claim 54 recites correcting for distortion in the received image data and then comparing inherent characteristics of the corrected image data to a plurality of image records, in combination with the other features of the claim.

Gindele is not understood to teach or suggest such a combination.

Nor is the other applied art as discussed above.

Favorable consideration is respectfully requested.

Remaining Claims

The remaining claims are also believed patentable in their own right. Favorable and individual consideration is respectfully requested.

Conclusion:

Applicants respectfully request an early Notice of Allowance. The Examiner is invited to contact the undersigned at 503-469-4685 if any question remains.

Respectfully submitted,

Date: August 19, 2005

DIGIMARC CORPORATION

Customer No. 23735

By _____

Steven W. Stewart
Registration No. 45,133

Phone: 503-469-4685
FAX 503-469-4777